

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (previously presented) A method of charging two or more rechargeable batteries from a single current source by use of two or more separate charging ports, the batteries being coupled to different respective charging ports, the method comprising:

determining a charging current to be allocated to each charging port at least in part on an average current drain during usage of the rechargeable battery coupled to the respective charging port; and

allocating charging currents from the single current source to the two or more separate charging ports so that said two or more rechargeable batteries will be fully charged at substantially the same time.

2. (original) The method of claim 1, further comprising:

determining relative amounts of charge required to fully charge said two or more rechargeable batteries.

3. (cancelled)

4. (currently amended) A charger comprising:

a single current source;

two or more separate charging ports;

a current allocator to allocate charging currents from said single current source to said two or more ports; and

a controller to determine said charging currents so that two or more rechargeable batteries coupled respectively to said two or more ports will be fully charged at substantially the same time; and

one or more lookup tables, wherein the controller is configured to determine from the one or more lookup tables an amount of charge required to fully charge each battery based on measured voltage differences at the two or more ports, a battery type of the respective battery and an average current drain of each battery during usage.

5. (currently amended) The charger of claim 4, further comprising:
a measurement unit to measure voltage differences at said two or more ports.
and;

~~one or more lookup tables,
wherein said controller is to determine from said one or more lookup tables an amount of charge required to fully charge a each battery based on said measured voltage differences, a battery type of the respective battery, and an average current drain of said each battery during usage.~~

6. (currently amended) The charger of claim 4, wherein a particular one of said rechargeable batteries is inside a battery-operated device and said controller is to receive a voltage of said particular rechargeable battery from said battery-operated device., the charger further comprising:

~~one or more lookup tables,
wherein said controller is to determine from said one or more lookup tables an amount of charge required to fully charge said particular battery based on said received voltage, a battery type, and an average current drain of said particular battery during usage.~~

7. (previously presented) The charger of claim 4, further comprising a measurement unit to measure voltage differences at said two or more ports for use in determining said charging currents.

8. (cancelled)

9 (previously presented) The charger of claim 4, wherein a particular one of the rechargeable batteries is, in use of the charger, inside a battery-operated device

and the controller is configured to receive a voltage of the particular rechargeable battery from the battery-operated device for use in determining an amount of charge required to fully charge the particular battery.

10. (cancelled)

11. (currently amended) The method of claim ~~40~~ 2, wherein the steps of determining and allocating are repeated during charging of the batteries.

12. (currently amended) The method of claim ~~40~~ 2, wherein the charging currents are allocated in proportion to the determined amounts of charge.

13. (cancelled)

14. (previously presented) The method of claim 1, wherein the batteries are for a mobile electronic device.

15. (previously presented) The charger of claim 4, wherein the batteries are for a mobile electronic device.

16. (cancelled)